Work Task C1:   **Point Count Design and Sample Size Evaluation**

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Purpose: System monitoring is required by the LCR MSCP to evaluate effectiveness of proposed habitat restoration. To initiate a system monitoring program for riparian obligate birds, a monitoring system must be designed and samples taken to determine sample size.

Conservation Measures: MRM1 and MRM2

Long-term Goal: Starting in FY06, a system monitoring program for riparian avifauna will be initiated, using information obtained in FY05. These surveys will continue on a periodic basis throughout the LCR MSCP period.

FY05 Estimate: In 2005, Reclamation biologists will conduct a sample of point count transects along the LCR. Data gathered will be used to design the monitoring system and determine the number of point transects needed to obtain adequate sample size to effectively monitor long-term trends along the LCR. FY05 costs are estimated at $50,000 and include Reclamation staff, travel, and per diem.

Project Description: The LCR MSCP lists 26 covered species and 5 evaluation species. Some individual species such as the southwestern willow flycatcher and the yellow billed cuckoo have or will have system monitoring programs established. However, it is inefficient to monitor every covered species individually throughout the entire LCR MSCP project area.

                           Monitoring bird populations is an effective way to monitor ecosystem health, especially neo-tropical migratory birds within riparian habitats. Reclamation has worked with Great Basin Bird Observatory, U. S. Geological Survey, and other agencies to develop a system monitoring design for the State of Nevada, through Partners-in-Flight. By utilizing a similar monitoring plan, data from the LCR can be incorporated into a larger, regional database to make these data more powerful during analysis. Population trends can be derived over time, thus enabling Reclamation to monitor riparian habitat health and effectiveness of the LCR MSCP Habitat Conservation Plan.